

COMMITTEE ON SCIENCE AND HUMAN VALUES
NCCB, WASHINGTON, D.C.
MARCH 23, 1992

Present: Bishop Friend, Chairman
 Cardinal Bevilacqua
 Bishop DuMaine
 Bishop Egan
 Cardinal Hickey, Consultant
 Fr. Salmon, Consultant
 Dr. Singer, Consultant
 Mrs. Boman, Staff
 Dr. Byers, Staff

Bishop Friend opened the meeting with prayer at 6:05 pm.

The minutes of the March 1991 meeting were accepted as presented.

Bishop Friend added two items to the agenda: a symposium at Georgetown, and a letter from Dr. Russell regarding the Human Genome Initiative. The agenda was approved as amended.

Bishop Friend asked Dr. Byers to give his staff report. Dr. Byers said Dr. John Burris of the National Academy of Sciences (NAS) is out of the country and could not attend the present meeting. However, he remains interested in the work of the Committee on Science and Human Values (CSHV) and, in particular, in helping set up a regular dialogue between CSHV and NAS. Dr. Byers added that, in his view, this dialogue is the most important project the committee has ever undertaken.

Bishop Friend said he has spoken with Bishop DiLorenzo (who could not be present today) about chairing a sub-committee to plan the first dialogue session. He asked Bishop DuMaine if he would serve on such a committee; Bishop DuMaine agreed to do so. Bishop Friend deferred further discussion of the dialogue until later in the meeting.

Dr. Byers reported that after the November meeting, NAS President Frank Press requested information on the Church's position on animal research. Bishop Friend sent him a paper developed by Dr. Barbara Linen, a moral theologian. Dr. Byers subsequently sent Dr. Burris several newspaper articles presenting the Catholic view in more straightforward fashion. Dr. Burris wrote in December to say that the newspaper articles reflect opinions similar to those contained in recent publications from NAS and the Institute of Medicine. These publications have been distributed to the members of the committee. Bishop Egan said there is little disagreement in Catholic circles that appropriately regulated animal research is licit.

Dr. Byers reported that Fr. Robert Brungs, S.J. has resigned as a CSHV consultant due to poor health. However, he remains active as head of the Institute for Theological Encounter with Science and Technology (ITEST) in St. Louis. Dr. Byers said he will keep Fr. Brungs on the mailing list for meeting documentation, since his observations are often helpful. He added that he made substantial comments on the draft manuscript of a book which Fr. Brungs has now published on the role of the Catholic scientist in bridging a faith commitment and a career in science. The book contains some rather dense theology. Dr. Byers has suggested to Fr. Brungs that he develop a short, practical magazine article to present his message to scientists who may be sympathetic but impatient with theorizing. He concluded by noting that ITEST will be hosting a conference in Saint Louis in October on the Human Genome Initiative.

Bishop Friend said he has established contact with Dr. G. B. Marini-Bettolo, president of the Pontifical Academy of Sciences, through Dr. Singer's good offices. Dr. Marini-Bettolo expressed interest in the committee's work and in possible future cooperation. He will send a list of the Academy's activities and publications. Father Salmon noted that a Belgian chemist whose work he particularly admires, Ilya Prigogine, is a member of the Academy.

Bishop Friend said that Dr. Robert Russell's Center for Theology and the Natural Sciences (CTNS) is co-sponsoring a series of symposia on "God's Action in the World" with the Vatican Observatory. Perhaps CSHV can play some role in these symposia in the future.

Bishop Friend reported that Bishop Boland, chairman of the Communications Committee, wrote to inquire whether CSHV would like to help formulate a response to Archbishop Lipscomb's varium on pornography. Bishop Friend responded on the committee's behalf that pornography does not fall within CSHV's purview. Dr. Byers said he received an inquiry from a student at Dartmouth regarding genetics, science, and faith, which he answered to the best of his ability.

Bishop Friend turned to consideration of the Joint Appeal on Religion and Science. The Joint Appeal, which is developing a statement on the environment, will meet with political leaders in Washington early in May. The statement will be the subject of a special Senate hearing. Bishop Friend said he has been in touch with Bishop Malone, chairman of the Domestic Policy Committee, since the issues the joint statement raises are similar to those covered in the pastoral statement on the environment the body of bishops approved last November. They are primarily social rather than scientific in nature. Bishop Malone will attend the meeting with Bishop Friend.

Bishop Friend said that even though the goals of the Joint Appeal are not strictly relevant to the committee's work, there is considerable value in his continued participation. He has met many religious leaders with a broad interest in the interaction of science and religion and the heads of several national scientific organizations. His

presence also gives CSHV public exposure and marks it as an active participant in efforts to bridge the worlds of science and religion. Bishop Friend added that he has no desire to go out on a limb by himself. He hopes CSHV, Domestic Policy and International Policy can work together on this project, the latter two committees taking responsibility for social policy and CSHV confining itself to scientific issues.

Dr. Singer said she was also invited to the Joint Appeal's May conference. While she fears the conference will prove to be more a political "event" than a true dialogue between scientific and religious leaders, she agrees that it presents a good opportunity to let a significant group of people know that the Catholic Church has a well-developed position on environmental issues.

Dr. Singer added that a significant number of environmental scientists believe global population is the principal cause of pollution, deforestation, species loss and the depletion of natural resources generally. Dr. Singer said it is important for Catholic bishops to take part in these discussions; otherwise any statement the group approves could reflect this point of view. Bishop Egan agreed that the Catholic perspective must be articulated. Bishop Friend said population is indeed "a slippery slope," but added that Dr. Anne Whyte gave a balanced presentation on population at the Joint Appeal's June 1991 meeting in New York and will presumably do so again in May. Moreover, Catholics are not alone in their stance; the Orthodox stand with us.

Cardinal Hickey said that when the Domestic and International Policy Committees held hearings on their draft pastoral last year, the director of the Environmental Protection Agency immediately raised the population issue. Bishop Friend said the first draft of the statement resulting from the Joint Appeal's June 1991 meeting contained objectionable language on population. He succeeded in having the language altered before the signed final draft was made public.

Dr. Singer noted that the public statement the May conference produces will serve as the basis for a public hearing. Bishop Friend replied that this is the special Senate hearing to which he referred earlier. Dr. Byers cautioned that coalition statements have caused the Conference embarrassment in the past, when Catholic sensitivities were not adequately respected. It is sometimes difficult to exercise control over their content. Bishop Friend said he realizes the potential for manipulation and politicization of the statement.

Dr. Singer asked if the statement will appear over Bishop Friend's name. Bishop Friend replied that it will, but the organizational affiliations of the signers will be labelled "included for information purposes only." Further, all signers have a chance to amend the text before it is published. If worse comes to worst, finally, he could decline to sign the statement. Dr. Singer and Fr. Salmon said this arrangement seems to offer sufficient safeguards. There was consensus that Bishop Friend should attend the Joint Appeal conference on behalf of the committee.

Bishop Friend reported that he has been invited to participate in a conference entitled: "Preserving the Creation: Environmental Theology and Ethics" to be held April 21-23 at Georgetown University. The conference is being underwritten by a grant from the Bauman Foundation.

Bishop Friend turned to consideration of the proposed dialogue between CSHV and NAS. He and Dr. Byers had breakfast with Dr. Frank Press in March. Dr. Press said that NAS never co-sponsors events with outside organizations, but expressed interest in discussing subjects of mutual interest. He added that the topics for dialogue should not be "philosophical" in nature, but rather should be concrete subjects with important scientific and ethical implications such as the environment, animal research or the Human Genome Initiative.

Dr. Byers said the sooner the dialogue can be launched the better. If the committee wishes to hold the first session in 1992, it should probably be planned for August to respect academic schedules. Bishop DuMaine said it may already be too late to mount an August meeting. Bishop Friend agreed, but added that CSHV should respond as positively and promptly as possible to NAS' offer.

Bishop DuMaine said he is working with the Commission of Bishops and Scholars, which hopes to establish a forum for discussing new departures in theology. In three days, the commission will be meeting to develop final plans for its October conference, the theme of which is U.S. culture. The bishop said he believes at least one speaker should be invited to represent the scientific perspective, since science and technology strongly influence the way people think. Perhaps the committee would be interested in asking NAS to nominate someone to fill this spot.

Bishop Friend asked if the commission will explore the impact of science on culture, the impact of culture on science, or both. Fr. Salmon said most scientists have little interest in this sort of question; they tend to think much more concretely. Dr. Singer said she recently served on a panel intended to educate young people for a multi-cultural society. The organizers wanted to treat science as one element in such a society, even though the scientific perspective, being international in scope and empirical in method, has little in common with other "cultures." A scientist might add something of value in the setting Bishop DuMaine describes.

Bishop DuMaine said that several years ago he was invited to serve on a panel at Stanford on the social and ethical aspects of the genome project. The members of that panel and speakers at a more recent symposium on apportioning health care were clearly uneasy about the social impact of scientific development. It is clear, however, that most scientists lack the tools to analyze and manage that impact. Whatever one thinks of Dr. Carl Sagan, he raises issues which concern many. Bishop DuMaine concluded by saying that the date and site for the commission's October conference are set, but accommodations could perhaps be made for an additional speaker.

Bishop Friend said CSHV approached the culture/science issue at the January 1990 dialogue session in Burlingame, which focused on the differential use of language in philosophy and science. He reminded the group, however, that NAS would prefer to discuss the practical ethical implications of scientific and technological advances. Dr. Singer agreed that this may be the more promising strategy. In Burlingame we discovered that scientists and philosophers (or bishops, for that matter) do not speak the same language. The committee and NAS should select a relatively narrowly-defined human problem and exchange views on how it is to be approached without questioning one another's fundamental beliefs.

Dr. Byers said he has been converted to Dr. Singer's point of view over the years. CSHV's original mandate was to foster dialogue on science and faith which mirrored the NCCB's interreligious dialogues. This remains a goal, one which underlies the committee's agreement to co-sponsor the Notre Dame conference in 1993. As far as direct dialogue with the scientific community is concerned, however, it seems best to start with specific issues which both sides see as problematical. Discussion of the interaction between science and religion will emerge quite naturally from such dialogue, in the course of analyzing and seeking consensus on the practical matter at issue.

Bishop Friend noted that CTNS is presently conducting the more philosophical sort of discussion. If CSHV tackles concrete topics, the two approaches will be mutually complementary. Moreover, many bishops will have a lively interest in the results of dialogue on subjects with practical pastoral implications.

Bishop DuMaine asked if the committee would be interested in playing some role in the commission's October conference. Bishop Friend said two possible topics for dialogue have been mentioned so far: "culture and science," and "some specific problem with practical ethical implications." Bishop Egan said he has some interest in the explosive growth of information technology and in the mind-brain question. He added that he is not interested in the topic of animal research. Dr. Byers said topics related to genetics are promising; bishops are becoming aware of the daunting social and ethical issues these topics raise. At the same time, some scientists are beginning to fear their own power. Dr. Singer disagreed with the latter observation. Researchers, she said, tend simply to pursue knowledge wherever it leads, without much thought about possible applications. She suggested that the first dialogue session deal with criteria for apportioning health care.

Cardinal Bevilacqua said he finds Dr. Byers' comments on CSHV's mandate somewhat confusing. The committee should continue to model its dialogues on interreligious discussions, where the participants choose a topic and hope to come to some agreement on matters of substance. As Dr. Singer just noted, scientists tend to believe that what can be done should be done, while religious leaders are interested in the ethical dimension of scientific and technological advances. The object of dialogue should be to arrive at a mutually satisfactory balance between these two interests, which requires an

appropriate methodology. The bishops need not learn science, but they need some methodology to enter into fruitful dialogue.

Cardinal Bevilacqua asked Dr. Singer whether she meant to imply that scientists have no real interest in ethical issues. Dr. Singer replied that many scientists clearly do. For example, physicians must deal with ethical and even religious concerns, because they arise daily in their clinical work. Some scientists, moreover, raise ethical issues to garner political or public support for their research. Others may not see ethics as a restraint on research, but feel its importance for living a good life. Bishop DuMaine said that in his experience scientists are interested in the ethical implications of their work. The linkages are far from obvious, though. The panel on the social and ethical implications of the Human Genome Initiative on which he sat could not agree on how ethics applies to research and the product of research.

Dr. Singer said the committee must choose its issue carefully; otherwise, the scientists will end up lecturing the bishops. The ideal topic is one to which both sides bring particular expertise, such as the ramifications of screening for genetic defects. Cardinal Bevilacqua said he spoke with a researcher at a Philadelphia hospital who claimed he could predict from genetic information what physical problems an individual could expect to have at age 50 or age 60. Dr. Singer said the researcher exaggerated; the most science can do is give probability estimates for certain conditions. Bishop DuMaine said that even probability estimates may have ethical implications as, for example, when couples are told their unborn child has X chance of being wheelchair-bound.

Dr. Byers noted that the committee needs to move quickly if a dialogue session is to be scheduled this year. Bishop DuMaine said his suggestion regarding the Commission for Bishops and Scholars and the dialogue with NAS are not mutually exclusive. CSHV could nominate someone to take part in the commission's October conference and still try to set up a dialogue session for August.

Bishop Egan agreed that the committee needs to respond to the NAS without delay. He added that he has no objection to being lectured if the subject demands it. Father Salmon explained that a few years ago Dr. Singer, Dr. French Anderson and Dr. Daniel Nathans gave committee members a one-day course in basic genetics. While their presentations were excellent, no provision was made for the bishops to respond, so there was no true dialogue. Dr. Singer agreed that the session was quite one-sided. Father Salmon said that while such conferences are useful for committee members, they do nothing to help answer the questions scientists have on the ethical implications of their work.

Bishop Egan said he feels the bishops were able to make some ethical observations at the session on genetics, if only on the informal level. Dr. Byers said he believes it is fundamentally important to structure future dialogue sessions so that the bishops have a substantive role to play and are not merely passive. Father Salmon said that CSHV designed such a structure for the Burlingame session, but it failed because only

two bishops could be present. Dr. Singer underlined the need to choose a clearly defined topic, the science of which can be briefly explained, leaving room for real dialogue.

Dr. Singer explained that one product of the Human Genome Initiative will be the ability to diagnose problems with fetuses in utero. The possession of this knowledge raises very serious ethical and religious questions. CSHV could structure a dialogue featuring, on the one hand, presentations on the reliability and utility of genetic screening; and, on the other, presentations on the ethical issues involved. Dialogue could proceed based on this pool of information. This approach would allow the committee to examine real issues without addressing the Human Genome Initiative in all its complexity. Bishop Friend said a topic of this sort would have real practical value; one of CSHV's goals is to help the U.S. bishops deal with new pastoral issues. Bishop Egan agreed, adding that pastors are already getting questions on genetic screening.

Bishop Egan said the use of fetal tissue for therapeutic purposes can be fruitfully examined from both a scientific and a religious perspective. Bishop Friend said the subcommittee could propose genetic screening and the use of fetal tissue to the NAS as possible topics for dialogue. Cardinal Hickey suggested adding the definition of death or brain death. Dr. Singer suggested the use of animals as factories for the production of substances useful to humans: for example, producing insulin in cows' milk. Bishop Egan said the Church sees no moral issue here, since the cow is a lower animal which may legitimately be used for human benefit. Dr. Singer said she did not understand this response. What about the effect on the cow? What if it leads an uncomfortable or unpleasant life as a result of experimentation? There was consensus that these circumstances do not negate the ruling moral principle, although people must avoid cruelty to animals out of respect for their own human dignity.

Father Salmon suggested toxic waste as a dialogue topic, but added that it has already been much studied. Bishop Egan asked whether the "ozone hole" is a serious cause for concern. Father Salmon replied that the evidence for the thinning of the ozone layer, especially over Antarctica, is unambiguous, but scientists disagree on the severity of the problem. Dr. Singer said a significant increase in the amount of ultraviolet radiation reaching the surface could have very bad effects on both plant and animal life.

Bishop Friend said Dr. Byers will write to Dr. Burris listing the topics the members have suggested and asking NAS to state a preference. The subcommittee composed of Bishops DiLorenzo and DuMaine will then consider the NAS response and prepare a recommendation for the June 19 committee meeting.

Bishop Friend turned to consideration of a questionnaire from Cardinal Poupard, president of the Pontifical Council for Non-Believers (CNB) and the Pontifical Council on Culture (COC). The questionnaire is in preparation for a symposium on "Speaking of God to People Today" which CNB will host in March 1994; a reply is requested by October 1993. Bishop Friend said he has spoken with Cardinal Poupard about CSHV's

work on two occasions. The cardinal expressed interest and asked to be kept informed about committee activities. Bishop Friend added he wishes CSHV could relate to COC rather than CNB, since many scientists consider themselves believers.

Bishop Friend asked for suggestions on how to handle the questionnaire. Bishop DuMaine said the symposium topic has little relevance to the committee's work. Bishop Egan agreed. Bishop Friend said he does not want to broaden the operating definition of "human values" to take in all of culture. Cardinal Hickey agreed that CSHV needs to maintain its strict focus on science. There was consensus that the committee should decline to respond to the questionnaire. Bishop Friend will write to Cardinal Poupard to this effect.

Bishop Friend turned to consideration of the Notre Dame conference on religion and science scheduled for April 1993. Dr. Byers noted that he has distributed a more developed outline of the conference. Many speakers have been added, but some are still to be identified. He recalled Dr. Fred Suppe's presentation on this conference at the November committee meeting, noting that the members seemed unconvinced of its value. While the CSHV is committed to co-sponsoring the event, he added, there may still be time to reverse this decision.

Bishop DuMaine said he raised objections to the conference at the November meeting. The updated conference outline clarifies its purpose and makes it look less like a retreat. While he recognizes that CSHV is already listed as a co-sponsor, however, he still has some reservations. Relatively few scientists are taking part, and the topic of many of the talks is not specified. Dr. Byers drew the committee's attention to the "Call to the Symposium" on page 2 of the outline. These paragraphs make it clear that the conference is not about science per se but about the philosophy of science and the relationships among science, philosophy and faith. It seeks to answer the following question: "To what extent would or should an epistemology adequate for science approximate an epistemology suitable for Christian spirituality, affirmation and knowledge?"

Bishop Egan noted that the title of the conference is "Knowing God, Christ and Nature in the Post-Positivist Era." Is it really fair to say, he asked, that positivism is dead? Dr. Byers replied that most thinking scientists and philosophers of science would no longer hold that science proceeds according to strict positivistic tenets. Father Salmon said modern holistic science sees the world as moving through stages in a generally definable direction. Bishop Egan said that he knows what post-modernism means, but what is post-positivism? Dr. Byers replied that "post-positivistic" means that scientists and philosophers no longer naively regard a strict empiricism as the only valid means of acquiring knowledge about reality.

Dr. Singer said quantum theory in the microworld and chaos theory in the macroworld both undermine positivism by imposing theoretical limits on what can be

known empirically. She added that the 1992 conference of the Pontifical Academy of Sciences will deal with chaos theory and randomness as it affects physics, chemistry and other disciplines.

Bishop Egan said he found Dr. Fred Suppe's presentation in November confusing. Dr. Byers said the Notre Dame conference is an effort to forge a view of reality which both scientists and people of faith can accept and to which both disciplines can contribute from their different perspectives. Its purpose is to bridge the perceived conflict between science and religion which has dogged intellectual life in the West since Galileo's time.

Dr. Byers said he favors CSHV's co-sponsorship of the conference because this goal is highly consistent with the committee's original statement of purpose, which states in part: "Both religion and science have insights to share on the great philosophical and practical questions of our time.... Wisdom lies where the truths of religion and science conjoin. The Committee achieves its purpose by establishing and maintaining ongoing dialogue groups concerned with issues of theological and philosophical interest." While this statement of purpose should be amended in light of CSHV's developing relationship with NAS, it provides a clear basis in policy for the present project.

Bishop Egan said CSHV dealt with the range of issues to be discussed at Notre Dame in its Burlingame dialogue session. Cardinal Bevilacqua said epistemology has to do with how truth is known, not with different perspectives on a given subject. Dr. Byers read aloud the second paragraph of the "Call to the Symposium," noting that the conference will explore to what extent scientists and religionists can agree on a unified epistemology, which may have to be rather broadly defined. For example, religious leaders could concede that evolutionary theory (which describes a dynamic world developing steadily in the direction of greater complexity and higher consciousness) legitimately constrains the formulation of certain religious doctrines like original sin (which posits a "Golden Age" of physical and moral perfection from which humanity fell). For their part, scientists could admit the legitimacy of intuition, mystical experience and divine revelation in achieving a comprehensive understanding of reality.

Dr. Singer said she fears that the conference will turn into a contentious debate, because theologians, philosophers and scientists are not equally represented. Bishop DuMaine agreed, saying the roster of speakers should contain more scientists for the sake of balance. Cardinal Bevilacqua asked if this is the kind of conference which scientists are likely to attend. Father Salmon and Dr. Singer said most scientists have little interest in philosophical discussion.

Bishop DuMaine added that some scientists may be put off by the specifically religious tone of the conference. Bishop Egan expressed a concern that the theologians slated to attend the conference all seem to share a certain theological perspective.

Dr. Byers explained that, unlike the NAS dialogue, the Notre Dame conference is not designed as a discussion between religionists and scientists on subjects of mutual

interest. Rather, it represents an attempt to get the Church's own house in order vis-a-vis modern science and to mend the arm's-length relationship which has persisted between the two camps for centuries. Dr. Singer asked why the conference focuses on epistemology. Father Salmon replied that the conference organizers want to discuss, and move toward reconciling, the different ways scientists and religionists seek knowledge about reality.

Bishop Friend said he approved committee involvement in the conference because, as Dr. Byers has pointed out, it is consistent with CSHV's goals. On the other hand, CSHV's evolving relationship with NAS is an important new development. He sees no reason, beyond staff and budgetary constraints, why the committee cannot probe the relationship between religion and science on two levels: an ongoing dialogue with the scientific community on concrete issues with practical pastoral implications, and a more philosophical exploration of how to maintain a faith stance in an age intellectually dominated by science. Dr. Singer asked whether the philosophers of science are familiar with current scientific thought. Father Salmon said his Cosmos and Creation group exists to bring philosophers of science into fruitful conversation with working scientists in many different fields. He believes that both scientists and philosophers benefit from this exchange.

Cardinal Bevilacqua conceded that the philosophy of science is interesting, but asked how much priority CSHV should give it. Dr. Byers replied that the committee's early activities, during Cardinal Hickey's chairmanship, consisted in rather abstract discussion among scientists, philosophers and theologians. Cardinal Hickey said the committee is clearly ambiguous about the Notre Dame conference. While he has no objection to co-sponsorship in light of the committee's history, CSHV should now be focusing on the dialogue with NAS. Can we be co-sponsors without investing funds and staff time? Dr. Byers replied that while no significant staff time would be required, a financial commitment representing part of CSHV's 1992 program funds has already been made. It may be possible, however, to negotiate with Notre Dame on this commitment.

Bishop Friend asked if the committee wishes to withdraw as a co-sponsor of the Notre Dame conference. There was consensus that co-sponsorship is appropriate. However, Bishop Friend instructed Dr. Byers to write to Dr. Suppe to inquire whether CSHV's financial commitment is negotiable and to ask for clarification of the points committee members have raised. Bishop Egan said CSHV is not asking that the conference design be changed; it is probably too late for that. However, the committee would like to see the project more clearly explained. Bishop Friend said Dr. Byers should request a clarification of the conference's title and the "Call to the Symposium," ask why so few scientists have been engaged as speakers, and recommend that the next draft of the conference outline include the titles of the talks and the backgrounds of the speakers.

(NOTE: Staff has added explanation and examples to the above account of the discussion of the Notre Dame conference in an attempt to clarify the ideas at issue.)

Bishop Friend asked if there was any further business. Dr. Singer inquired whether CSHV has ever addressed the issue of science education in Catholic schools. The most recent reports say that Catholic schools excel in teaching science in the younger grades, but quality declines in high school and college. Dr. Byers replied that the committee has never seen science education as part of its mission. Bishop Friend said the Education Committee might show some interest. Dr. Singer said she found the quality of science education a persuasive point in an article entitled: "Why Keep Your Child in Catholic School?" Bishop Egan said this topic should have a place on CSHV's agenda. Dr. Byers mentioned that the committee has discussed the possibility of encouraging the establishment of an association of Catholic scientists in the United States, but has never actively pursued the idea.

Bishop Friend announced that the next committee meeting is scheduled for 8:00 pm., Friday, June 19, at Notre Dame. The committee will meet thereafter at 5:00 pm., Monday, September 14 at NCCB headquarters in Washington.

The meeting adjourned at 8:30 pm.